

Original Research

Local television news coverage of traumatic deaths and injuries

David L McArthur
Daniel Magaña
Corinne Peek-Asa
Jess F Kraus

Southern California
Injury Prevention
Research Center
UCLA School of Public
Health
10833 Le Conte Ave
Los Angeles, CA
90095-1772

Correspondence to:
Dr McArthur
dmca@ucla.edu

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ABSTRACT ● **Objective** To assess how local television news programs' reporting of injuries and deaths from traumatic causes compares with coroners' records of deaths and the estimated incidence of injuries in the same geographic area during the same time. ● **Methods** Using epidemiologic methods, we identified the underlying cause of death or injury in each of 828 local television news stories broadcast in Los Angeles during late 1996 or early 1997 that concerned recent (<3 days) traumatic injuries or deaths in Los Angeles County. Odds ratios were computed using deaths by homicide or injuries sustained in assaults as the referent group. ● **Results** The number of persons depicted as dead amounted to 47.8% of the actual total number of traumatic deaths occurring in Los Angeles County during the study period. In contrast, the number depicted as injured represented only 3.4% of injuries due to traumatic causes. Both injuries and deaths due to fires, homicides, and legal interventions were proportionally well represented. However, injuries and deaths from accidental poisoning, falls, and suicide were significantly underrepresented. ● **Conclusions** Some types of events receive disproportionately more news coverage than others. Local television news tends strongly to present only those events concerned with death or injury that are visually compelling. We discuss reasons for concern about the effect that this form of information bias has on public understanding of health issues and possible counteractions that physicians can take.

Local television news occupies an important position for many Americans, providing a window on the community's reality and shaping the audience's views of its society.¹ It can also offer a modicum of medical literacy. As in any other journalistic endeavor, news directors must decide what to include in a broadcast, what effort should be devoted to researching each topic, with how much emphasis, and using which perspective. In medical and technical areas, this can be a difficult assignment for news staff with limited relevant expertise. One health topic, however, commonly receives special emphasis: violent deaths and injuries are stock items in the widespread "eyewitness" formulation of local television news.

Across most of the spectrum of programming categories, violence has been intensely studied.²⁻⁷ However, whereas local television news content has been harshly criticized for a long time,⁸ assessments of its portrayal of traumatic deaths and injuries have been rare. In this study, we focus on these concerns—and on why they should matter to health care professionals—through a comparison of a sample of local television news programming with real-world frequencies of traumatic injuries and deaths.

METHODS

In this investigation of traumatic deaths and injuries, we applied modern epidemiologic methods to a source not frequently tapped for such purposes.⁹ UCLA's Film and Television Archives allowed us access to videotapes of 9 channels of news broadcasts originating in Los Angeles. All 9 channels included at least 1 late-afternoon or evening 30-minute program of news in English or Spanish. One of

Summary points

- Local television news programs' reporting of deaths from traumatic causes differs in important ways from coroners' records in the same geographic area during the same time
- Reporting of injuries differs dramatically from the incidence of injuries
- In television news stories shown in Los Angeles, about half of the actual number of traumatic deaths in the area during the study were reported but only 3.4% of hospitalized injuries due to traumatic causes
- Many kinds of injury were significantly underrepresented
- We discuss how this affects the public's medical literacy and how clinicians might affect this problem

us (D M), a trained bilingual coder, reviewed a total of 1,134 broadcasts from 63 randomly selected weekdays in late 1996 and early 1997. A story was defined as a cohesive presentation, usually by 1 news anchor or a single reporter, and generally covering 1 event. If a traumatic injury or death occurring in Los Angeles County was shown on camera or discussed, the type, apparent cause, treatments for victims, treatment outcomes, and related factors were noted.

Stories were excluded if they were merely brief "teasers" for a longer story about to be aired or if they concerned natural deaths, traumatic events more than 3 days old, trials of persons accused of causing deaths or injuries, non-traumatic deaths or chronic injuries, or traumas occurring elsewhere in the world. With duplicates, only the story presented closest to the actual event was retained; if aired

simultaneously, the story with the greater total running time was used.

Each victim was assigned a cause-of-injury code reflecting the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM, shortened in this article to ICD-9), E codes.¹⁰ These divisions are as follows:

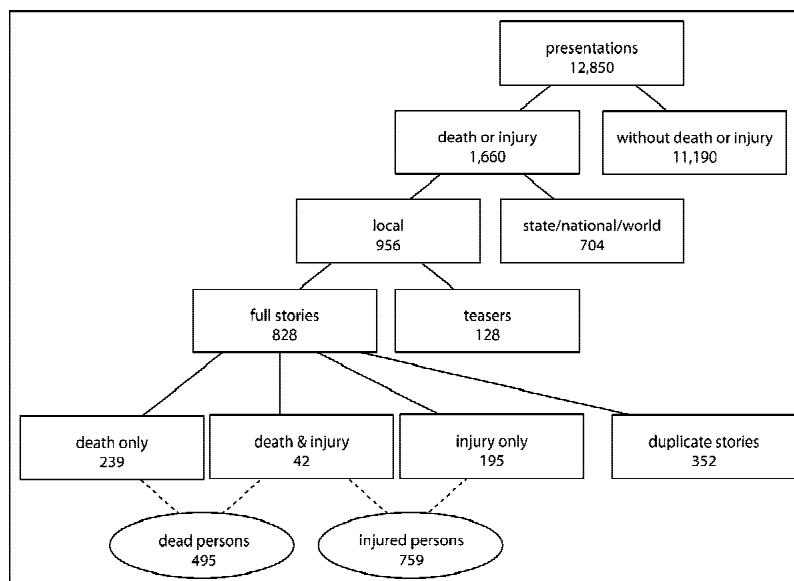
- Railway: E800-E807
- Motor vehicle traffic accident: E810-E819
- Motor vehicle nontraffic accident: E820-E829
- Water transport: E830-E838
- Air transport and other vehicles: E840-E848
- Accidental poisoning: E850-E869
- Falls: E880-E888
- Fires: E890-E899
- Natural/environmental factors: E900-E909
- Submersion: E910-E915
- Other accidents: E916-E928
- Suicide and self-inflicted injuries: E950-E959
- Homicide or assault: E960-E969
- Legal intervention: E970-E979
- Injury undetermined whether purposeful or accidental: E980-E989

In a 5% sample of randomly selected stories, interrater reliability between coder and principal investigator was found to be high (Cronbach $\alpha = 0.94$). For comparison purposes, frequencies of deaths and injuries classified under the same ICD-9 E codes during the same period were derived from computerized state mortality files and hospital discharge files.

Odds ratios with 95% confidence intervals were computed for ICD-9 categories by comparing each category's ratio of depicted to actual deaths or injuries with the ratio of such events due to homicides or assaults. These were selected as the referent because they are the most commonly portrayed causes of death and injury, their occurrence is generally deemed "newsworthy," and their presentation can have high visual effect even with minimal information.

RESULTS

In 3 months of late-afternoon and evening local television news programming across 9 Los Angeles channels (7 in English and 2 in Spanish), a total of 1,660 stories involving traumatic death or injury were shown. Traumatic deaths were found in 239 unique stories, 195 unique stories dealt solely with traumatic injuries, and 42 unique stories presented information about 1 or more deaths and



Derivation of study sample

1 or more injuries from the same event (figure). The number of persons depicted as dead represented 47.8% of the actual total number of traumatic deaths occurring in Los Angeles County during the study period, and the number depicted as injured represented 3.4% of injuries due to traumatic causes (6 of the deaths [1.2%] and 21 of the injuries [2.8%] contained too little information to code).

During the study period, almost all deaths by homicide and all deaths by air transport, fire, natural or environmental factors, and legal interventions were reported. Although these causes together constituted only 31.4% of the actual number of traumatic deaths in Los Angeles County during the study period, they were 65.6% of all deaths presented. Table 1 shows the number, percentage, odds ratios, and 95% confidence intervals of actual deaths and local television news coverage of deaths, using homicides and assaults as the referent. In contrast to the high proportion of deaths due to air transport, fires, natural or environmental factors, and homicides and assaults, deaths due to motor vehicle crashes were portrayed about a third less, and all other causes of death were portrayed in much lower proportion to their actual occurrence during the study period.

For nonfatal injuries, table 2 shows the number, percentage, odds ratios, and 95% confidence intervals of estimated injuries for which the victims were hospitalized and corresponding local television news coverage. The most frequent report about injuries concerned assaults; about 1 of every 5 such events resulting in hospitalization was presented. Injuries due to fires and water transport were portrayed proportionally more often than any other cause of injury. Underrepresented injuries included accidental poisonings, motor vehicle nontraffic events, falls,

Table 1 Number, percentage, odds ratio (ORs), and 95% confidence intervals (95% CI) of actual deaths and local television news coverage of deaths by cause, Los Angeles, California, November 1996 and March and May 1997*

ICD category†	Actual deaths, no.	Production shown, %	OR	95% CI
Motor vehicle traffic accidents	216	63.9	0.65	0.59-0.72
Air transport and other vehicles	3	100.0	1.02	1.01-1.04
Accidental poisonings	129	3.9	0.04	0.02-0.09
Falls	56	12.5	0.13	0.06-0.26
Fires	14	100.0	1.02	1.01-1.04
Natural or environmental factors	1	100.0	1.02	1.01-1.04
Submersions	26	26.9	0.28	0.15-0.52
Other accidents	31	6.5	0.07	0.02-0.25
Suicides and self-inflicted injuries	188	5.9	0.06	0.03-0.11
Homicides and assaults	307	97.7	‡	
Legal interventions	2	100.0	1.02	1.01-1.04

*Deaths from incidents classified as railway, motor vehicle nontraffic, watercraft, and injury undetermined whether accidentally or purposefully inflicted are not included because the total number of both actual and portrayed deaths in these groupings was too small for statistical analysis.

†ICD-9 = *International Classification of Diseases, 9th Revision, Clinical Modification*.¹⁰ See text for relevant codes.

‡Referent.

Table 2 Number, percentage, odds ratio (ORs), and 95% confidence intervals (95% CI) of actual injuries and local television news coverage of injuries by cause, Los Angeles, California, November 1996 and March and May 1997*

ICD category†	Injuries shown, no.	Estimated proportion, %‡	OR	95% CI
Motor vehicle traffic accidents	2,231	9.0	0.43	0.36-0.50
Air transport and other vehicles	23	13.0	0.62	0.22-1.79
Accidental poisonings	816	3.6	0.17	0.12-0.24
Falls	6,696	0.2	<0.01	0.00-0.01
Fires	90	57.8	2.75	2.26-3.36
Natural or environmental factors	253	2.3	0.11	0.05-0.25
Submersions	296	1.4	0.06	0.02-0.17
Other accidents	2,238	1.4	0.07	0.05-0.09
Suicides and self-inflicted injuries	1,296	0.5	0.02	0.01-0.05
Homicides and assaults	1,772	21.0	§	
Legal interventions	21	33.3	1.59	0.86-2.93

*Injuries from incidents classified as railway, motor vehicle nontraffic, watercraft, and injury undetermined whether accidentally or purposefully inflicted are not included because the total number of both actual and portrayed injuries in these groupings was too small for statistical analysis.

†ICD-9 = *International Classification of Diseases, 9th Revision, Clinical Modification*.¹⁰ See text for relevant codes.

‡Estimates from hospital discharges recorded in Los Angeles County in 1996 and 1997, reported annually by the Office of Statewide Health and Planning.

§Referent.

natural or environmental factors, submersions, and the category of “other accidents”—incidents such as being struck by falling objects and injuries due to machinery, explosions, or electricity.

DISCUSSION

Principal findings

Traumatic injuries and deaths as presented on local television news and the true occurrence of these deaths and estimated occurrence of these injuries are grossly dissimilar. Like newspaper coverage of crime and violence, only a few causes of traumatic death and injury shown on local television news programs are well represented.^{3,11,12} The primary focus of local news is on events with high visual intrigue—eg, air crashes, homicides—and stories about deaths and injuries with lesser visual content are rarely shown. In addition, many of the causes of deaths and injuries emphasized by local television news tend to have high relationships to crime, real or inferred, and those that are de-emphasized have a much lower likelihood that a criminal act was involved.

Strengths and weaknesses of the study

The study sample represents a cross-section of news styles, covering all the local news broadcasters within a large television market. However, because identical news formats, although common, are not used across the entire country, the generalizability of findings may be restricted. Yet, even those news stations featuring expert medical commentators do not appear to have expanded public literacy in the area of traumatic injuries and deaths. A strength of this study is its strong epidemiologic methodology, although some small cell sizes remain that limit more detailed statistical testing.

Comparison with other studies

No other similar studies of medical information in television news using an epidemiologic approach are known to have been conducted. Prabhu et al tabulated pediatric health news stories included in 108 days' worth of newscasts from 1 local channel and administered questionnaires to pediatricians and patients.¹³ Dorfman et al analyzed the content of 12 days of local television newscasts across 26 channels—specifically, stories concerning youth violence.¹⁴ Berger evaluated the degree of apprehension and judgments of victimization risk from news items in a laboratory study of reactions to tape-recorded mock news events, controlling for the nature of the story and the degree of threat.¹⁵ Cooper et al presented news stories to test audiences with or without an explicit tie-in to a well-known television medical drama series.¹⁶ Unlike several of

these studies, our investigation did not attempt to examine viewer reactions. However, despite their different starting points, all 4 of the studies cited concluded, as we have, that news media routinely miss important aspects of the entire story; in Berger's words, they "grotesquely refract and skew . . . the state of affairs in the world they claim to represent realistically."¹⁵ (p101)

Meaning of the study

Public medical literacy depends critically on good source material. Widely followed conventions in local television news programming appear to discourage an accurate sense of proportions and causes of injuries and deaths. The absence of context, supporting information, and education about the noncriminal circumstances surrounding most traumatic events leaves viewers uninformed about critical features, such as their precipitating causes and relative riskiness. How television news educates the viewer—eg, the semiotics or process of giving meaning to the material presented¹⁷—in light of such incompleteness is likely a process in which emotions can be as important as the facts.¹⁸ For many relatively frequent causes of injury, the average citizen might see equivalents on television only as wrought from the imaginations of screenwriters and actors for entertainment purposes. Even for those injuries that are often depicted on television news, the total experience provided seems unlikely to educate the public but may serve instead only to heighten anxieties and distort perceptions of risk. Such miseducation, then, can place additional demands on health care professionals to uncover and correct a variety of misunderstandings and misapprehensions by patients and families. Especially when talking with younger children whose skills at interpreting the various "realities" depicted on television are still forming, clinicians should be alert for educational opportunities about health risks and hazards that may have been drastically oversimplified on the latest news show.

No common standard about the newsworthiness of medical stories exists among local television news producers and directors, but in general, Singer and Endreny found that

[t]he media . . . select for emphasis hazards that are relatively serious and relatively rare. It is the combination that gives them their punch. . . . A rare hazard is more newsworthy than a common one, other things being equal. A new hazard is more newsworthy than an old one. And a dramatic hazard—one that kills many people at once, suddenly or mysteriously—is more newsworthy than a long-familiar illness.¹⁹ (pp82-83)

Newsworthiness alone cannot be the basis for increasing the public's medical literacy.

Can the conventional news broadcast—sometimes called "If it bleeds, it leads"—be altered to be less distorting? A handful of news directors have offered "family-friendly" news formats, in several instances with explicit guidelines about what forms of violence, injury, and death should or should not be allowed to be aired. Self-censorship, however, raises complex problems in its own right²⁰ and has not been met with audience favor.

Alternatively, it may be possible for the medical profession to help improve news broadcasters' basis of understanding of deaths and injuries through careful education. Health specialists can offer specific ways by which television news journalists can become familiar with the current state of knowledge about injury incidence and control. In addition, they can be instrumental in strengthening connections between medical care facilities and hospital information officers with news directors and reporters. Such knowledge might serve to aid decision-making processes needed to place accurate news stories before the viewers, both about traumatic injuries and deaths and about health issues in general. This comports with the conclusions of Chadwick and others not only that the media affect the public's well-being, but also that the media's provision of accurate information is a keystone in a workable democracy.²¹

Unanswered questions and future research

Medical misinformation emerges from many sources, not just the local news. However, if television news were able to bolster patients' understanding of medical issues and participation in the clinical process through the provision of balanced, accurate, and complete information, this might be immediately helpful for patients and clinicians alike.^{22,23} A study at either the patient or community level of the power of accurate medical information to help improve the processes of injury prevention and of healing has yet to be conducted.

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Authors: Dr David McArthur is now with the Division of Neurosurgery, UCLA School of Medicine. Dr Daniel Magaña is now with Pacificare Health Systems. Dr Corinne Peek-Asa is now with the Department of Occupational and Environmental Health, College of Public Health, University of Iowa, Iowa City.

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